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FIGURE 1

Alignment of Biotin Synthase Proteins from Barley (SID18), Corn (SID 20-24), Prickly Poppy (SID 28), Soybean (SID 28 and 30), and Wheat (SID 32)

SID18	TTTPS-----AVSP--SAAAPFRPALLAE--PAMLLLLARSLRSVRSPFASAVSAAPFSSVSAAAAEAEARAVERDGGPRNDWTRP
SID20	MA-----LMLLARNLRSRLRPPLAA--AAAFSS--AAAEARAIRDGPRNDWSRP
SID22	MA-----LMLLARNLRSRLRPPLAA--AAAFSS--AAAEARAIRDGPRNDWSRP
SID24	MA-----LMLLARNLRSRLRPPLAA--AAAFSS--AAAEARAIRDGPRNDWSRP
SID26	-----MLKVQSL-RAR-----LRPLIFIS-----TFSSLSSSSSSAAAAVQAERTIKEGPRNDWSRD
SID28	TKPNPKHYRCCLLSLSCLYSQISHSFVVSLPNFEFESKMFRLARPIFRA--PSLWALHSSYAYSSASAAAIAERAIKEGPRNDWSRD
SID32	T-----MMLVRSVFRSQ-----LRPSV-SG-----GLQASCYSSLSAASAEARTIREGPRNDWSRD
1705463	MAT-----LRTSLRSRLILRSNTPKLAPIS-----SSVRLQVQKSRNRYGTVSSVPPQATETSTSPSKDVYQEAALNATE-PRSNWTRE
SID30	2995363 M-----FT-----RTIRQQIRSSALSIV-----RNNWTRE
6321725	M-----MSTIYRHLSTA--RPALT KYATNAA--VKSTTASSEASTLGALQYALS-----DEPSHSWTKS
SID18	EIQAIYDSPLLDLLFHGAQVHRNVHKFREVOQCTLLSIKTGGCSEDCSYCPQSSRYSTGLKAEKLMKKDAVLEAAKKAKEAGSTRFCMGA
SID20	EIQAVYDSPLLDLLFHGAQ-----SSRYNTGLKAQKLMNKYAVLEAAKKAKEGSGSTRFCMGA
SID22	EIQAVYDSPLLDLLFHGAQVHRNVHKFREVOQCTLLSIKTGGCSEDCSYCPQSSRYNTGLKAQKLMNKDAVLEAAKKAKEGSGSTRFCMGA
SID24	EIQAVYDSPLLDLLFHGAQVHRNVHKFREVOQCTLLSIKTGGCSEDCSYCPQSSRYNTGLKAQKLMNKYAVLEAAKKAKEGSGSTRFCMGA
SID26	EIKSVYDSPVLDLLFHAAQVHRHAHNHNFREVOQCTLLSVKTTGGCSEDCSYCPQSSRYDTGVKAQKLMNKDAVLAQAAEKAKAGSTRFCMGA
SID28	QVKSIIYDSPILDLLFHGAQVHRHAHNHNFREVOQCTLLSIKTGGCSEDCSYCPQSSKYDTGVGQPLMNKEAVLQAAKKAKEAGSTRFCMGA
SID32	-----RDVLEAAKKAKEAGSTRFCMGA
1705463	EIKSVYDSPLLDLLFHGAQVHRNVHNFREVOQCTLLSIKTGGCSEDCSYCPQSSRYSTGVKAQRLMSKDAVIDAAKKAKEAGSTRFCMGA
SID30	EIKAIYDKPLMELCWGAGSLHRKFHIPGAIQMCTLLNIKTGGCSEDCSYCAQSSRYQTGLKASKMVSVESVLAARIAKDNNGSTRFCMGA
2995363	EIQKIYDTPLIDLIFRAASIIHRKFHDPKKVQOQCTLLSIKTGGCTEDCKYCAQSSRYNTGVKATKLMKIDEVLEKAKIAKAGSTRFCMGS
6321725	QKLEIYHTPLLELTHAAQLQHRKWHDP TKVQLCTLMNIKSGGCSEDCKYCAQSSRNDTGLKAEKVMVKVDEVIKEAEAEAKRNGSTRFCCLGA

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FIGURE 2: Clone cdt2c.pk002.c17 Contains a 99 Nucleotide Deletion

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SID19 CGACTGGAGCCGCCGAGATCCAGGCCGCTCAGACTCACC GGCTCCTCGACCTCCTCTT
SID21 CGACTGGAGCCGCCGAGATCCAGGCCGCTCAGACTCACC GGCTCCTCGACCTCCTCTT

SID19 TCACGGGGCTCAG-----
SID21 TCACGGGGCTCAGGTCACAGAAATGCCATAAAATTCAGAGAAGTCAGCAATGCACACT

SID19 -----
SID21 TCTTTCAATCAAGACTGGTGGATGCAGTGAAGATTGTTCTTACTGTCTCAGTCATCAAG

SID19 ATACAACACTGGATTGAAGGCCCCCAAAATTGATGAACAAATATGCTGTCTTGGAAAGCAGC
SID21 ATACAACACTGGATTGAAGGCCCCCAAAATTGATGAACAAAGATGCTGTCTTGGAAAGCAGC

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